

What is claimed is:

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5 biphasic pulses, wherein each biphasic pulse comprises a positive pulse and a negative pulse, and wherein biphasic pulses comprises even and odd type, comprising:

10 sending a first biphasic pulse at a first time instance; and
sending a second biphasic pulse at a second time instance, wherein
said first biphasic pulse and the second biphasic pulse are different types,
wherein the time interval between said second time instance and said
first time instance represents at least a first set of the data bits, said first set of data
bits comprising at least one data bit.

2. The method according to claim 1, wherein said odd type of
said biphasic pulse and said even type of said biphasic pulse connected by different
sequences of the positive pulse and the negative pulse

5 3. The method according to claim 2, wherein each biphasic pulse
does not carry any dc component.

4. The method according to claim 3, wherein each of the
positive pulse and the negative pulse of each biphasic pulse is a square pulse having
an amplitude and a pulse width.

5. The method according to claim 4, wherein the amplitude of
each biphasic pulse represents a second set of data bits, said second set of data bits
comprising at least one data bit.

6. The method according to claim 4, wherein the pulse width of each biphasic pulse represents a second set of data bits, said second set of data bits comprising at least one data bit.

7. The method according to claim 1 transmits the sequence of data bits over telephone wiring.

8. An apparatus for transmitting a sequence of data bits through a data transmission line using biphasic pulses, each of the biphasic pulses comprising a positive and a negative pulse, wherein said biphasic pulses comprises even and odd type, comprising:

5 a marking generator coupled to said transmission line for generating a sequence of biphasic pulses, each of two consecutive biphasic pulses being separated by a time interval, said time interval representing a first set of data bits, wherein said first set of data bits comprises at least one data bit.

9. The apparatus according to claim 8, wherein each biphasic pulse does not carry any dc component.

10. The apparatus according to claim 8, wherein each of the two consecutive biphasic pulses belongs to different type.

11. The apparatus according to claim 10, wherein said odd type of said biphasic pulse and said even type of said biphasic pulse connected by different sequences of the positive pulse and the negative pulse.

12. The apparatus according to claim 8, wherein each odd type of the biphasic pulse is followed by an even type of the biphasic type.

13. The apparatus according to claim 8, wherein said odd type of said biphasic pulse and said even type of said biphasic pulse have different sequences of the positive pulse and the negative pulse.

14. The apparatus according to claim 8, wherein each of the positive pulse and the negative pulse of each biphasic pulse is a square pulse having an amplitude and a pulse width.

15. The apparatus according to claim 14, wherein the amplitude of each biphasic pulse represents a second set of data bits, said second set of data bits comprising at least one data bit.

16. The apparatus according to claim 15, wherein the pulse width of each biphasic pulse represents a second set of data bits, said second set of data bits comprising at least one data bit.

17. The apparatus according to claim 8, wherein said data transmission line is a telephone wiring.

5 18. A method of transmitting a sequence of data bits, comprising:
transmitting a sequence of biphasic pulses comprising odd type and even type, wherein each biphasic pulse is of different type its immediately neighboring biphasic pulses, and wherein each biphasic pulse does not carry any dc component,

wherein the length of each time interval between two consecutive biphasic pulses represents a portion of the data bits.